AUTOMOTIVE INDUSTRIES

INDEX TO VOLUME LII

(January 1 to June 25, 1925)

Here is an accurate guide to the authoritative articles and reference data which have appeared in AUTOMOTIVE INDUSTRIES during the last six months. The publication of this index is in line with our constant efforts to make this publication of maximum service to the entire automotive industry.

Jan Jan Jan Jan Jan Fel Fel Ma Ma Apo Apo Apo Ma Ma Ma Jun Jun Jun

A. Accordance Advantage Andrews A. Air G. Advantage A. Air A. Air

INDEX TO VOLUME LII

ISSUES OF JAN. 1 TO JUNE 25, 1925, INCLUSIVE

Jan. Jan. Jan. Jan.		
Jan.	8	in Detroit American Bump
Jan.	22 133- 172	bumper (ills.)
	29	American Bureau
Feb. Feb.	12	A. G. Oehler p American Chemic
Feb.	19 293- 332	automotive top
Feb. March	26	Chemists seek a
March	12 487- 526	Clayden
March	19 527- 566	Am. Gear Mfg.
March April	26	Meeting American Electric
April	9 647- 686	conference
April	16 687- 726	American Hammer
April April	23	Taken over by Construction C
May	7 807- 846	American Nationa
May May	14 847- 886 21 887- 926	Publishing tal
May	28 927- 966	American Road
June	4	vention
June June	18 1047-1096	American Sheet a Automotive de
June	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	American Society
		American Society 1 A. S. T. M. pape
		Andreau engine po Anheuser-Busch Co
	A	Apex Electric Mfg.
A. C	-How one light British car per-	Apperson Bros.
for	rms 507	Straight-away Apperson starts
		scale
Access		Price revisions .
Sales	ssories at New York show (ills.) 68 increase in south 766	Prices reduced . Asbestos Brake L Ashland Rubber C
Accide		Ashland Rubber C Auburn Automobile
Acci	dents reduced by 4 wheel brakes 460	car
Calif	fornia motor bill creates new ime	Sedan bodies for
Grov	wth of motor accidents awaits	Audi engine (phot Austin-Brandmeier
so	lution (photos) 730	battery charge
1994	traffic accidents 764	British price va Austria—American
Traff	fic fatalities show first decline 478	on Austrian b
Acme	Motor Truck Co.—Adds one ton	on Austrian by Auto Bed Camp M
Advan	re Rumely Thresher Co	cooler (ills.) . A. B. C. safety
Oilpu	traffic accidents. 40 traffic accidents. 40 traffic accidents. 764 fic fatalities show first decline. 478 Motor Truck Co.—Adds one ton er to truck line. 569 ce-Rumely Thresher Co. ull tractors redesigned. 466	Auto Body Co
Advert	ising	Automobile Body
Adve	ertisers forecast a gain over 1924. 245	Automobile Body —Discuss prog
Coor		
	dination of advertising and sales. 1078 A. D. A. starts used car sales	Fifth annual cor
ca	dination of advertising and sales 1078 A. D. A. starts used car sales mpaign	Fifth annual cor Automobile Merch
Spee	dination of advertising and sales.1078 A. D. A. starts used car sales mpaign	Fifth annual con Automobile Merch New York—An Automotive Elec
Spee Was	mpaign	Fifth annual con Automobile Merch New York—Ar Automotive Elec elected
Spee Was	mpaign	Fifth annual con Automobile Merch New York—Ar Automotive Elec elected Changes recomm
Spee Was	mpaign	Fifth annual con Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release fi
Spee Was	mpaign	Fifth annual cor Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release f Handbook of 1
Spee Was "Wh fro Your or A. E.	mpaign 562	Fifth annual cor Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release fi Handbook of I Standards, Pul
Spee Was: "Wh fro Your or A. E. Air Cl Get	mpaign ds automotive progress 905 te in advertising 294 at the public has come to expect om American cars." 232 advertising—does it cost money bring profits? 847 A.—Generator standards 875 eaners road and laboratory tests. Dis-	Fifth annual cor Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release f Handbook of I Standards. Put Returned goods Seeks economy .
Spee Was: "Wh fro Your or A. E. Air Cl Get	mpaign ds automotive progress 905 te in advertising 294 at the public has come to expect om American cars." 232 advertising—does it cost money bring profits? 847 A.—Generator standards 875 eaners road and laboratory tests. Dis-	Fifth annual cor Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release fi Handbook of I Standards. Put Returned goods Seeks economy Automotive Electric
Spee Was: "Wh fro Your or A. E. Air Cl Get cui	mpaign ds automotive progress 905 te in advertising 294 at the public has come to expect om American cars." 232 advertising—does it cost money bring profits? 847 A.—Generator standards 875 eaners road and laboratory tests. Dis- ssed at S. A. E. meeting (charts) 191 no moving parts and red dust	Fifth annual con Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release fr Handbook of I Standards. Put Returned goods t Seeks economy Automotive Electric Officers elected
Spee Was: "Wh fro Your or A. E. Air Cl Get cu: Has rec	mpaign ds automotive progress 905 te in advertising 294 at the public has come to expect om American cars." 232 radvertising—does it cost money bring profits? 847 A.—Generator standards 875 eaners road and laboratory tests. Dissed at S. A. E. meeting (charts) 191 no moving parts and no dust ceptacle (drawing) 227 air cleaver works on principle	Fifth annual cor Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release fi Handbook of I Standards. Put Returned goods Seeks economy Automotive Electric Officers elected Automotive Equipm
Spee Was: "Wh fro Your or A. E. Air Cl Get cu: Has rec	mpaign ds automotive progress 905 te in advertising 294 at the public has come to expect om American cars." 232 radvertising—does it cost money bring profits? 847 A.—Generator standards 875 eaners road and laboratory tests. Dissed at S. A. E. meeting (charts) 191 no moving parts and no dust ceptacle (drawing) 227 air cleaver works on principle	Fifth annual cor Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release fi Handbook of I Standards. Pul Returned goods Seeks economy Automotive Electri Officers elected Automotive Equipn Analyzes causes
Spee Wass "Wh fro Your A. E. Air Cl Get cu Has rec New of On	Maign	Fifth annual cor Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release fi Handbook of I Standards. Pul Returned goods Seeks economy Automotive Electri Officers elected Automotive Equipn Analyzes causes
Spee Wass "Wh from Your A. E. Air Cl Get cur Has rec New of On me Airkoo	Magnagh Magn	Fifth annual con Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release fi Handbook of I Standards. Put Returned goods (Seeks economy Automotive Electric Officers elected Automotive Equipm Analyzes causes turns Automotive Fan an
Spee Wass "Wh from Your A. E. Air Cl Get Cur Hass rec New of On me Airkoo	Magnagh Magn	Fifth annual cor Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release fi Handbook of I Standards. Pul Returned goods Seeks economy Automotive Electric Officers electric Automotive Equipn Analyzes causes turns Automotive Fan ar combination fa unit
Ca. Spee Was "Wh frr Your Or A. E. Air Cl Get Cu Has rec New of On me Airkoo pla Airplar Ajax	Maign	Fifth annual cor Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release fi Handbook of I Standards. Pul Returned goods Seeks economy. Automotive Electric Officers elected Automotive Equipm Analyzes causes turns Automotive Fan ar combination fa unit Automotive Lightir
Ca. Speee Wass "Wh frr Your or A. E. Air Cl Get cu Has rec New of On me Airkoo pla Airplar Ajax N New	mpaign ds automotive progress 905 te in advertising 294 at the public has come to expect om American cars." 232 advertising—does it cost money bring profits? 847 A.—Generator standards 875 eaners road and laboratory tests. Dis- ssed at S. A. E. meeting (charts) 1 no moving parts and no dust ceptacle (drawing) 227 air cleaner works on principle cream separator 148 trucks. Discussed at S. A. E. eting (charts) 192 I Spark Plug Co.—To build new unt 842 nes—See Aviation. Motors Co.—Orders parts 604 car described 931	Fifth annual cor Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release fi Handbook of I Standards. Put Returned goods Seeks economy. Automotive Electric Officers elected Automotive Equipm Analyzes causes turns Automotive Fan ar combination fa unit Automotive Lightin Automotive Manuf —Plans credit
Ca. Spee Was: "Wh frr Your A. E. Air Cl Get cu Has re New of On me Airkoo pla Airplar Ajax New Ajax Ajax Ajax	mpaign ds automotive progress 905 te in advertising 294 at the public has come to expect om American cars." 232 advertising—does it cost money bring profits? 847 A.—Generator standards 875 eaners road and laboratory tests. Dis- ssed at S. A. E. meeting (charts) 1 no moving parts and no dust ceptacle (drawing) 227 air cleaner works on principle cream separator 148 trucks. Discussed at S. A. E. eting (charts) 192 I Spark Plug Co.—To build new unt 842 nes—See Aviation. Motors Co.—Orders parts 604 car described 931 Rubber Co.—Reports earnings 599 Motor Co.—Co. Co. Perports earnings 594	Fifth annual cor Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release fi Handbook of I Standards. Pul Returned goods Seeks economy Automotive Electric Officers electric Officers electric Automotive Fan ar combination fa unit Automotive Lightin Automotive Lightin Automotive Lightin Automotive Manuf —Plans credit Automotive equip
Ca. Spee Was: "Wh frr Your A. E. Air Cl Get cu Has re New of On me Airkoo pla Airplar Ajax New Ajax Ajax Ajax	mpaign ds automotive progress 905 te in advertising 294 at the public has come to expect om American cars." 232 advertising—does it cost money bring profits? 847 A.—Generator standards 875 eaners road and laboratory tests. Dis- ssed at S. A. E. meeting (charts) 1 no moving parts and no dust ceptacle (drawing) 227 air cleaner works on principle cream separator 148 trucks. Discussed at S. A. E. eting (charts) 192 I Spark Plug Co.—To build new unt 842 nes—See Aviation. Motors Co.—Orders parts 604 car described 931 Rubber Co.—Reports earnings 599 Motor Co.—Co. Co. Perports earnings 594	Fifth annual cor Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release fi Handbook of I Standards. Pul Returned goods Seeks economy Automotive Electric Officers elected Automotive Equipm Analyzes causes turns Automotive Fan ar combination fa unit Automotive Manuf —Plans credit Automotive equip Has program for To establish equi
Ca. Spee Was: "Wh frr Your A. E. Air Cl Get cu Has re New of On me Airkoo pla Airplar Ajax New Ajax Ajax Ajax Ajax	mpaign ds automotive progress 905 te in advertising 294 at the public has come to expect om American cars." 232 advertising—does it cost money bring profits? 847 A.—Generator standards 875 eaners road and laboratory tests. Dis- ssed at S. A. E. meeting (charts) 1 no moving parts and no dust ceptacle (drawing) 227 air cleaner works on principle cream separator 148 trucks. Discussed at S. A. E. eting (charts) 192 I Spark Plug Co.—To build new unt 842 nes—See Aviation. Motors Co.—Orders parts 604 car described 931 Rubber Co.—Reports earnings 599 Motor Co.—Co. Co. Perports earnings 594	Fifth annual cor Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release fi Handbook of I Standards. Pul Returned goods Seeks economy Automotive Electric Officers elected Automotive Equipm Analyzes causes turns Automotive Fan ar combination fa unit Automotive Lightin Automotive Lightin Automotive equip Has program for To establish equi Auto Sales Corp.—
Ca. Spee Was: "Wh frr Your A. E. Air Cl Get cu Has re New of On me Airkoo pla Airplar Ajax New Ajax Ajax Ajax Ajax Ajax Ajax	mpaign ds automotive progress 905 te in advertising 294 at the public has come to expect om American cars." 232 advertising—does it cost money bring profits? 847 A.—Generator standards 875 eaners road and laboratory tests. Dis- ssed at S. A. E. meeting (charts) 1 no moving parts and no dust ceptacle (drawing) 227 air cleaner works on principle cream separator 148 trucks. Discussed at S. A. E. eting (charts) 192 I Spark Plug Co.—To build new unt 842 nes—See Aviation. Motors Co.—Orders parts 604 car described 931 Rubber Co.—Reports earnings 599 Motor Co.—Co. Co. Perports earnings 594	Fifth annual con Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release fr Handbook of I Standards. Puf Returned goods of Seeks economy Automotive Electric Officers elected Automotive Equipm Analyzes causes turns Automotive Fan ar combination fa unit Automotive Lightir Automotive Lightir Automotive Manuf —Plans credit Automotive equip Has program for To establish equi Auto Sales Corp.—I
Ca. Spee Wass "Wh frc Your Or A. E. Air Cl Get cu: Has rec New Of On Me Airpolar Ajax I Ajax I Albion Alcohoi Alumin Alumin Ambas: Americ	Marging Marg	Fifth annual con Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release fr Handbook of I Standards. Puf Returned goods of Seeks economy Automotive Electric Officers elected Automotive Equipm Analyzes causes turns Automotive Fan ar combination fa unit Automotive Lightin Automotive Lightin Automotive Manuf —Plans credit Automotive equip Has program for To establish equi auto Sales Corp.—I Auto Specialties of izers (ills.)
Ca. Spee Wass "Wh fro Your A. E. Air Cl Get cu. Has of On me Airkoo pla Airplar Ajax I New Ajax I Albion Alumin Alumin Ambas Americ Off	Marging Marg	Fifth annual con Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release fr Handbook of I Standards. Puf Returned goods of Seeks economy Automotive Electric Officers elected Automotive Equipm Analyzes causes turns Automotive Fan ar combination fa unit Automotive Lightir Automotive Lightir Automotive Manuf —Plans credit Automotive equip Has program for To establish equi Auto Sales Corp.—I
Ca. Spee Wass "Wh fro Your Or A. E. Air Cl Get Has ree New of On Markoo pla Airplar Ajax I Albion Alumin Alumin Alumin Alumin Alumin Ambass Americ Om On	Marging Marg	Fifth annual con Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release fi Handbook of I Standards. Put Returned goods f Seeks economy . Automotive Electric Officers elected Automotive Equipm Analyzes causes turns Automotive Fan an combination fa unit Automotive Manuf —Plans credit Automotive equip Has program for To establish equi Auto Sales Corp.—I Auto Specialties (izers (ills.) . Aviation Aircraft engine
Ca. Spee Wass "Wh fro Your Or A. E. Air Cl Get Has ree New of On Markoo pla Airplar Ajax I Albion Alumin Al	mpaign ds automotive progress 905 te in advertising 294 at the public has come to expect om American cars." 232 advertising—does it cost money bring profits? 847 A.—Generator standards 875 eaners road and laboratory tests. Dis- ssed at S. A. E. meeting (charts) no moving parts and no dust ceptacle (drawing) 227 air cleaner works on principle cream separator 148 trucks. Discussed at S. A. E. seting (charts) 192 I Spark Plug Co.—To build new att 842 nes—See Aviation. 842 nes—See Aviation. 842 nes—See Aviation. 931 Rubber Co.—Reports parts 604 car described 931 Rubber Co.—Reports earnings 599 Motor Car Co.—Reports profits 804 I approved as anti-freeze 222 num—Used for castings 707 num Alloys—Tests (ills.) 738 sador name changed to Hertz. 84 an Association of State Highway licials. Meeting 206 an Automobile Assn.—Warns ainst radical legislation 38 commercial valided department 446	Fifth annual con Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release fi Handbook of I Standards. Put Returned goods f Seeks economy . Automotive Electric Officers elected Automotive Equipm Analyzes causes turns Automotive Fan an combination fa unit Automotive Manuf —Plans credit Automotive equip Has program for To establish equi Auto Sales Corp.—I Auto Specialties (izers (ills.) . Aviation Aircraft engine
Ca. Speee Wass "Wh fro Your Or A. E. Air Cl Get Cu Has ree New Of On Mairkoo Dla Airplar Ajax I Albion Alumin Alum	mpaign ds automotive progress 905 te in advertising 294 at the public has come to expect om American cars." 232 advertising—does it cost money bring profits? 847 A.—Generator standards 875 eaners road and laboratory tests. Dis- ssed at S. A. E. meeting (charts) no moving parts and no dust ceptacle (drawing) 227 air cleaner works on principle cream separator 148 trucks. Discussed at S. A. E. seting (charts) 192 I Spark Plug Co.—To build new att 842 nes—See Aviation. 842 nes—See Aviation. 842 nes—See Aviation. 931 Rubber Co.—Reports parts 604 car described 931 Rubber Co.—Reports earnings 599 Motor Car Co.—Reports profits 804 I approved as anti-freeze 222 num—Used for castings 707 num Alloys—Tests (ills.) 738 sador name changed to Hertz. 84 an Association of State Highway licials. Meeting 206 an Automobile Assn.—Warns ainst radical legislation 38 commercial valided department 446	Fifth annual con Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release fr Handbook of I Standards. Put Returned goods of Seeks economy Automotive Electric Officers electric Officers electric Officers electric Automotive Equipm Analyzes causes turns Automotive Fan an combination fa unit Automotive Manuf —Plans credit Automotive equip Has program for To establish equi Auto Sales Corp.—I Auto Specialties of izers (ills.) Aviation Aircraft engine Compass making vented (photo) De Haviland bab
Ca. Speee Wass "Wh fro Your Or A. E. Air Cl Get Cu Has ree New Of On Mairkoo Dla Airplar Ajax I Albion Alumin Alum	mpaign ds automotive progress 905 te in advertising 294 at the public has come to expect om American cars." 232 advertising—does it cost money bring profits? 847 A.—Generator standards 875 eaners road and laboratory tests. Dis- ssed at S. A. E. meeting (charts) no moving parts and no dust ceptacle (drawing) 227 air cleaner works on principle cream separator 148 trucks. Discussed at S. A. E. seting (charts) 192 I Spark Plug Co.—To build new att 842 nes—See Aviation. 842 nes—See Aviation. 842 nes—See Aviation. 931 Rubber Co.—Reports parts 604 car described 931 Rubber Co.—Reports earnings 599 Motor Car Co.—Reports profits 804 I approved as anti-freeze 222 num—Used for castings 707 num Alloys—Tests (ills.) 738 sador name changed to Hertz. 84 an Association of State Highway licials. Meeting 206 an Automobile Assn.—Warns ainst radical legislation 38 commercial valided department 446	Fifth annual con Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release fr Handbook of I Standards. Puf Returned goods of Seeks economy Automotive Electric Officers elected Automotive Equipm Analyzes causes turns Automotive Fan ar combination fa unit Automotive Lightin Automotive Lightin Automotive Lightin Automotive equip Has program for To establish equi Auto Specialties of izers (ills.) Aviation Aircraft engine Compass making vented (photo) De Haviland bab Development of co
ca. Speee Wass "Wh fro Your Or A. E. Air Cl Get cu Has rec New of On Airkoo Alroha Airplar Ajax I Albion Alcoho Alumin Ambass Americ Adds Fede Secun To fi Truci	mpaign ds automotive progress 905 te in advertising 294 at the public has come to expect om American cars." 232 advertising—does it cost money bring profits? 847 A.—Generator standards 875 eaners road and laboratory tests. Dis- ssed at S. A. E. meeting (charts) 191 no moving parts and no dust ceptacle (drawing) 227 air cleaner works on principle cream separator 148 trucks. Discussed at S. A. E. seting (charts) 192 I Spark Plug Co.—To build new total spark Plug Co.—To build new total car described 931 Rubber Co.—Reports earnings 599 Motor Car Co.—Reports earnings 599 Motor Car Co.—Reports profits 804 I approved as anti-freeze 222 tum—Used for castings 707 tum Alloys—Tests (ills.) 738 sador name changed to Hertz 84 an Association of State Highway ficials. Meeting 206 an Automobile Assn.—Warns ainst radical legislation 381 commercial vehicle department 446 res help of bonding bodies 290	Fifth annual con Automobile Merch New York—Ar Automotive Elec elected Changes recomm laws Favors release fr Handbook of I Standards. Put Returned goods of Seeks economy Automotive Electric Officers electric Officers electric Officers electric Automotive Equipm Analyzes causes turns Automotive Fan an combination fa unit Automotive Manuf —Plans credit Automotive equip Has program for To establish equi Auto Sales Corp.—I Auto Specialties of izers (ills.) Aviation Aircraft engine Compass making vented (photo) De Haviland bab

American Body Builders Assn.—To meet in Detroit	8
American Rumper Corn —Unright	1
American Bureau of Welding-Elects]
A. G. Oehler president	
automotive topics at meeting 680 Chemists seek answer to Question— "What is Detonation." By A. L.	.]
"What is Detonation." By A. L. Clayden	1
Am. Gear Mfg. Assn.—Ninth Annual	i
American Electric Railway Assn.—Bus	1
American Hammered Piston Ring Co	1
Taken over by McClintic & Marshall Construction Co	1
Publishing tables of physical and	2
American Road Builders Assn.—Con-	2
American Chest and Che Diete Co	I
Autorotive demand picks up 251 American Society for Testing Materials A. S. T. M. papers in book form 628 Andreau engine power stroke (ills.) 113 Anneuser-Busch Co.—Makes bodies 131	î
A. S. T. M. papers in book form 628 Andreau engine power stroke (ills.) 113	1
Anheuser-Busch Co.—Makes bodies 131	2
Anneuser-Busch Co.—Makes bodies 131 Apex Electric Mfg. Co.—Decree vacated 91 Apperson Bros. Automobile Co.— Straight-away eight (photo) 28 Apperson starts producing on a large	5
aspharaou producing on a mage	Ţ
scale	1
Prices reduced	7
Ashland Rubber Co.—Plant leased 866 Auburn Automobile Co.—Four cylinder	Ax
car	1
Audi engine (photo)	5
battery charger	Ay
British price variations484B Austria—American firms must pay taxes	
on Austrian business	
Austria—American irms must pay taxes on Austrian business	Bac
ordered	Bal
Diocum Progress	Bal
Automobile Merchants Association of	A
New York—Annual meeting 288 Automotive Electric Assn.—Officers	a
elected	Bal
laws	-
Handbook of Electrical Equipment Standards. Published by A. E. A 47	Bar
Returned goods topic to be probed 598	Bas
Seeks economy	Bas
Officers elected 242 Automotive Equipment Assn.	_
Analyzes causes of loss through re-	Bat
turns	N
combination fan and water pump	N
unit	S
—Plans credit service	Bat
	Bea
To establish equipment mart 284 Auto Sales Corp.—Income gains 486	Bea
Auto Sales Corp.—Income gains 486 Auto Specialties Co.—Drednaut equalizers (ills.)	H
Aviation	N
Aircraft engine weights (chart) 310	N
	Bee
compass making nying saier is invented (photo)	Beli
Double magneto developed for aircraft	_

839 new planes bought by air service	
since 1920	88 31
English light airplane trials. Europe continues to show great diversity in airplane design. By Leslie S. Gillette Exported by U. S. Ford air freighter makes maiden trip. Ford air route.	
Exported by U. S	51 71 72
Ford air route. Ford plans rapidly expanding. France offers cash prizes for aviation Fuel-air ratio and engine performance	80 72
France offers cash prizes for aviation Fuel-air ratio and engine performance	60
Improved airplane demonstration International air races to be held in October	75 83
October Is offered insurance protection Make aviation possible, W. B. Stout urges. S. A. E. meeting.	21
May stage reliability tour	18 68 87
Packard motor breaks air records Packard produces new engine (photo)	84
May stage reliability tour Navy requests manufacturers' bids Packard motor breaks air records Packard produces new engine (photo) Paris-Berlin air route. Plan airship service to coast and Europe	12
Europe Plans for aviation meet	88
Sikorsky plane design. By L. S.	61
Gillette	$\frac{31}{64}$
U. S. mail planes convertible for pas- senger service	90
senger service War Dept. makes awards for plane development Watch Ford plane interests	56 68
xles New Flint bevel gear bus axle has	
straddle-mounted driving pinion	23
among Fordson improvements yres, Leonard—Increasing car life is imminent danger to automotive fu-	25
ture	10
В	
adger Mfg. Co.—Leases machine shop. aker Bros. Inc.—New boring, drilling, tapping machine	84 15
alloon Tires	32
Adopted by Ford	21
and shimmying discussed at S. A. E. meeting	18
meeting altzly, E. B.—Closer cooperation with gear makers may cut car builders' costs	81
arbarino Motor Co.—New car produced arker & Co.—Portable sander intro-	5
ducedassick-Alemite Co.—Acquire Commerce	48
Company assick Mfg. Co.—Charges patent viola- tion	56
atteries Electric heat in storage battery manu-	
facture New Battery Charger Non-sulphating storage battery devel-	27° 43°
	150 920
auer taxicab exhibited at Chicago show	623 196
ean—Prices cut	311 718
earings Hollow metal balls made of strips and	
New bearing fitting machine operates	629
Novel production methods	454 978
pairs	068 82
support and mounting of rupherized	
	271

Janu

Da Da Da Da Da

De De De De

Bendix Brake Corp.—Novel four-wheel	Buick Motor Co.	Flint Sedan desc 805
brake exhibit (ills.)	Body production to be concentrated in Flint	Franklin series 11 desc. (ills.) 451 Gardner eight-in-line models (ills.) 30
Bergougnan Rubber Corp.—Sale planned	Results of balloon tire experiments 180 Salvage plant for Buick 597	Guyot racing car desc. (photo) 773
Porry Bros Inc -Introduces Berryloid.	Bull A A — Commends no-bypass lubri-	Hupmobile eight-in-line desc. (ills.). 4 Jay-Eye-See model (ills.) 29
a new lacquer finish 204	cating system	Jewett six desc. (ills.) 20
C. L. Best Tractor Co.—New tractor improvements. (ills.)	new model 130	Julian car with engine at rear of chassis 988
	New Power-operated chuck	Kissel eight-in-line desc. (ills.) 26
Bethlehem Spark Plug Co.—Davidson visualizes strong 1925 market	the Muli-Au-Matic, desc. (ills.) 708	Mayfair at \$485—Greatly like Ford 559 Modern tractors (ills.)
Bethlehem-Splitdorf Co.—Incorporated 76	Bumpers	Moon adds two new models desc 754
Bijur Lubricating Corp.—Chassis lubri-	Federal Pressed Steel Co. — New bumper	Moreland six wheel truck (ills.) 313 Morris car desc. (ills.)
cating system ready for market	bumper 227 Bureau of Labor Statistics—Increase in	Oldsmobile six engine and chassis
Bijur lubricating system applied on	March payroll 799 Bureau of Standards outlines dilution	changes (ills.) 734 Overland and Willys-Knight sixes
Packard six (ills.)	study at S.A.E. meeting (drawings) 188	desc. (ills.)
Knight sixes (ills.)	Burgess Battery Co.—Enlarges plant 439	Rickenbacker 1925 line desc. (ills.). 22
Cunningham new model desc. (ills.)1049 Stewart Brings Out New Bus Chassis	Buses	Rollin car (photo)
in Two Sizes 710	A. A. A. and N. A. C. C. seek opinions on truck and bus operation between	Rollin car (photo)
Two body models comprise new Cleve- land six line	states	six line 296
Bodies	Brill builds larger rail motor car with	Wills Sainte Clair six desc. (ills.) 24 Car life—Increasing car life is imminent
Body companies start additions 445	five forward speeds 461	danger to automotive future 105
Body design development	Bus use growing in England 280 Denmark has 500 buses 716	Cars—Small cars popular in Europe 377 Carver, W. L.—Chevrolet redesigned
Discussed at S. A. E. meeting 181 Franklin body design altered, desc.	Development in motorbus body design 378	(ills.)
(ills.) 451	Eight-wheeled, with gas-electric drive is developed, desc. (ills.) 700	Body design development1116
French builders are extending use of fabric leather bodies (photos) 813	Electric drive bus adopted in Albany. 718 Fifth Avenue bus control acquired by	Centerless grinders now used to turn taper shanks and ball ends (iils.) 821
Getting good body design 590	Chicago 680	Cut production waste-Modernize 447
New body models at New York show (ills.)	53,000 buses in United Sates 286 Gotfredson brings out new chassis 245	"Improved indexing mechanism added to gear tooth grinder" 147
Progress discussed at annual meeting	Gotfredson bus, desc. (ills.) 489	New G. M. C. trucks have 4 wheel
A. B. B. A	Interstate bus line decisions less sweeping than supposed, by H. L.	New Holley vaporizer permits use of
labor costs to minimum, by E. Schipper	Cobb	any grade of fuel
Weymann achieves striking body de-	New bus body designed	Novel bearing production methods978 Old habits and customs greatest obsta-
sign, by W. F. Bradley 660	Offset power plant of Gotfredson bus increases aisle space	cles in engineering progress 668
Book Reviews	Proposed specifications announced by	Oldsmobile six engine and chassis changes (ills.)
Automotive Construction and Opera-	S. A. E	Simple equipment used to machine
Automotive Electricity	Sedan bodies manufactured by Field	pistons accurately 502 S. A. E. lubrication and fuel utiliza-
Elements of Business Statistics 788	Body Corp. (ills.)	Steeldraulic four-wheel mechanical
German Automobile Manufacturers	Southern gales 941	brake (ills.) 850
Assn Year Book	Stewart brings out new bus chassis built in two sizes, by D. Blanchard. 710	Unusual range of operations possible with vertical automatic 777
Industrial Coal 547	Trailer for buses 904	Case T. M. Co.—Jay-Eye-See car desc.
Mechanical World Year Book 547 Profiable Electrical Service 547	Used by rallways increase 229 per cent in 19 months, by H. L. Cobb	Prices reduced on Models "X" and "Y" 684
Recovery of Gasoline from Natural	Use in Holland expands	Castings
Gas	World survey begun on bus develop-	Aluminum as used for castings 707 Chandler Motor Car Co.—New models
Bosch, Robert-New generators have	Bus, J. H. Co.—Sold	(ills.) 28
voltage control, desc. (ills.) 576 Bosch, Robert Co., and Eisemann Works	Business Survey	Central Administration of Motor Trucks —Organized
-Working agreement	Europe as a fertile field for American automotive products	C. G. Spring & Bumper Co.—Financial report
Overlands in England 469	Great activity in automotive plants 765	Chase, Herbert-Smoother performance
Overlands in England	More Light Needed on Efficiency of Marketing Methods, by Harry Tipper 580	in new car designs
with solid tires	Motor industry fares well at hands of	All gear shifting eliminated on new gas and electric Yellow coach 456
Rolls-Royce "New Phantom," desc 888 Rradley, W. F.—Weymann new sport	68th Congress	Bus design develops—1924 378 Cast iron valve heads can be welded to
sedan body design, desc. (IIIs.) 660	don't follow production lines. By N.	steel stems
Fiat four-cylinder car, desc. (ills.) 770 French builders are extending use of	G. Shidle	Chassis lubricating system developed by Bijur is ready for market (ills.) 262
fabric leather bodies (photos) 813	sales trend 937 Stocks low in Detroit factories 556	Lacquer finish problems1102
Lavaud automatic transmission 1058	Tire stocks at low point 758	Major units of new Indiana truck easily detachable
Brakes	C.	"What 'Ket' Saw and Heard in Europe and Africa"
Accidents reduced by four-wheel brakes		Valentine makes improvements in lac-
Hydraulic servobrake patented in Eng-	Cadillac Motor Car Co.—Ketterling addresses banquet	quer finishing
land	Changes in the Cadillac 54	Bus chassis planned by Studebaker 674
bined in new brake (ills.)	Elects L. P. Fisher president 763 Five-passenger coach (ills.) 27	Lubrication developed by Bijur (ills.) 262 Chevrolet Motor Co.
New device equalizes braking torque	Chaptung weight in Cadinac chassis	
on opposite sides of car 266 Quarter-elliptic spring adapted for	reduced (ills.)	Chassis changes
front brakes 137	—Formed	More price cuts in English cars 718
Rolls-Royce may use air brakes 463 Self-energizing brake shoe developed	Gasoline tay opposed 121	New mixture distributor described
in England (ills.) 234	California 1924 sales totaled 174,000 205 Sales affected by proposed legislation 212	(drawing)
S. A. E. brake session	Claims largest automobile investment 200	Six per cent purchase plan sales 760 Chrysler Motor Corp.—Output for 1924. 42
brake (ills.) 850 Tells of air brake of unusual design. 519	Camshaft—Designing simplified by Graphical method	Increase in sales
Briggs Mfg. Co.—Financial report 800	Canton Art Metal Co.—Get Holmes Co.	Maxwell transfer
Brill Co.—Trial run made by rail car 122 Brill builds larger rail motor car with	plant 124 Carborundum Co.—Portable, power-op-	Citroen Automobile Co.—Branch in
five forward speeds 461	erated sanding machine 990	Milan
Brosseau, A. J.—American Merchant Marine	Carbureters	Reduces prices on models in Britain 484a Starts work on Milan factory 243
Brown-Bouveri Co.—Seeks to invade U.	Juhasz carbureter desc	City Planning
S. field	carburetion requirements 626	Active Rody Needed in Every Town-
into base of new milling machine 468 Buda Co.—New six-cylinder engine 845	Car descriptions	by A. Macauley
Budd, E. G., Mfg. CoGet Liberty motor	Ajax car desc. (ills.)	(1118.)
plant	Cadillac coach (ills.)	"What is Detonation" 696
Labor Costs to Minimum, by J. Ed-	Chevrolet redesigned (ills.) 9	Problem of satisfactory all-year-round
ward Schipper 652 Budd Wheel Co.—Buys Columbia Motors	Comparative specifications of cars with new or redesigned chassis 3	engine lubrication—part 1
Company 474	Cunningham new model desc. (ills.)1049	engine lubrication—part 2 865 Shims in engine bearings facilitates
Buessing engine (photo)	Dodge coach finished in lacquer (ills.) 27 Fiat four cylinder car desc. (ills.) 770	repairs1068

	Juna y		
96	Cleveland Armature Works-New buffing	Delauncy-Belleville-British car producers	Edison Co.—Truck show
451	and polishing machines are chain driven	Delco Light Co.—To take over Dayton	Eisemann Magneto Corp.—Acquires Du- plex engine
773	Cleveland Automobile Co.—Six-cylinder model at the show	factory	manufactured in Detroit 879
29	Flat rate system announced 803 Piston rod bearings die cast in place	ton plant	Elkhart Motor Co.—Exhibit new body on 8-chassis at Chicago show 197
of 20	(ills.) 859	facture Lupton products in London. 765	Employment
988	Two body models in new six line (ills.)	Department of Commerce — Personnel changes in Automotive Division 561	Business better in Cleveland 520
1 559	Cleveland Automatic Machine Co.— Brings out new automatic screw	Derby Motor Car Ltd.—Canadian produc- tion	Detroit employment gains
754	machine (ills.) 312	Deschamps, H.—German automotive in- dustry faces fight for existence 470	Reports automotive employment gain- ing
313	Clutches—Advantages and disadvantages of single plate1017	Descombres auto body lock—Introduced here	Systematic employee training1026
sis	Coatings	Design	Tire activity attracts laborers from South 485
734 kes	Eastman Kodak Co. produces new paint	Body design development1116	U. S. survey shows employment gains in automobile industries
111	Kodalak pyroxylin lacquer and thinner 791	Body design discussion at A. B. B. A. convention1007	Engineering
.). 22	tine	Steady progress, few changes in car design, by P. M. Heldt	Research instruments demonstrated at
.) . 833	Lacqueroid finishing system 12	Detroit Machine Tool Co.—Motor drive	S. A. E. meeting
nd 296	Latest lacquer finish called Berryloid (Berry Bros.)	one feature of new centerless grinder desc. (ills.) 500	lems
ent 24	New Pyroxylin finish	Oetroit Steel Products Co.—Bus spring	Instrumentation progress seen (drawings and photos)
377	car body finish	Diamant, N. S.—Design of evaporative cooling systems	Research
red .	Cohalt—Use of	Dickerman, W. C.—Paper on piece work	Tire problems
931	Cobb, H. L.—Increase of buses used by railways 464	system1070 Dierfeld, Benno—Berlin automobile show	Aircraft engine weights (chart) 310
1116 Jrn	Interstate bus line decision less sweep- ing than supposed	Dillon, Read & Co.—Buys Dodge Com-	Andreau engine power stroke (ills.) . 113 Buda six-cylinder engine 845
821	Motor industry fares well at hands of 68th Congress	Gives E. G. Wilmer membership	Company to produce new type tur-
ied 147	Collins, J. H.	Dilution, new facts about, discussed at	Determination characteristics of high-
eel	Speaks at N. A. D. A. convention. 214 Manufacturers must help dealers. 892	S. A. E. meeting (drawings) 173 Must be checked to reduce engine	speed engines
of 610	Columbia Motors Co.—Sold to Budd	Wear	motoring an engine 812 Engine blocks completely machined in
698	Wheel Co. 474 Comings, A. V.—Business forecasting. 937 Commerce Motor Truck Co.—Acquired	Distribution	one multiple tool operation 272 Details of engines at New York show
ta- 668	by Bassick men 480	17,726,507 Motor Vehicles in U. S.— Gain is 2,413,849 or 15.8% 348	(ills.) 62
sis 734	Company to produce new type turbine 436 Competition (general) 1925 prospects 202	3,634,272 motor vehicles outside of	Machine tests engines at Morris plant (ills.)
ine	Conditions	U. S.—World total, 31,360,779 343 Dix, E. H., & A. J. Lyon—Comparative	Monsen four-cylinder engine (ills.) 111 Offset powerplant of Gotfredson bus
za-	Business good and getting better, fac- tories optimistic, by N. G. Shidle 687	tensile properties of aluminum alloys (ills.)	increases aisle space
1136 cal	Improvement in 1925 predicted by	Doble Steam Car Co.—Doble secures writ staying proceedings	Technical history of gas-electric drives, by P. M. Heldt
850 ble	M. A. M. A. survey shows increased	Dodge Bros.—Coach finished in lacquer (ills.)	Tests on 12 hp. low speed gas en-
777	husiness for 1925	Canadian plant to start in February 80	Use of motors planned by B. & O484d
Y" 684	World buying power is increased 622 Connecting rod discussed by S. A. E 761 Cleveland piston rod bearings (ills.) 859	Changes in personnel	Wills Ste. Claire busy producing new
	Continental Motors Corp.—Financial report	by Dodge purchase, by N. G. Shi- dle	Six 478
707 lels	Gets four large contracts	Dodge company sold	England Abolished automobile duties have little
cks	Cooling systems	nights	effect on English imports 265 British 1925 market to continue open . 170
cial 43	Many variations possible in design of evaporative cooling systems (ills.). 304	New coach model at show 56 1924 output 78	Bus use growing in England
129 nce	New combination fan and water pump	Not troubled by ban in Michigan 838	cars
ew 2	Conner Automobiles to use more in	\$146,000,000 check that bought Dodge (ills.)	Exhibit ban arouses Canada's ire 208
456	1925	Sale of bonds completes financing 721 Sales and earnings, 1919 to 1924—Cars	McKenna duties
1 to 533	and buses	sold—Net sales—Net income 675	Revival British duties
ped ls.) 262	Superfley shaft coupling introduced in	Shipped 225,104 in 6 months 283 Dominion rubber system — Prices re-	Ship to extract bromine from sea
1102	England	duced	water for ethyl gas (photo) 792 Ethyl Gasoline Corp.—Ship to extract
asi- 496	Crankshafts	tion	bromine from sea water for ethyl gas (photo)
ope 223	Protective case for crankshafts 505 Crossley Motors—British price varia-	Drills—Ingersoll-Rand wood drilling ma- chine, desc. (iils.)	Exports
ac-	tions	Drives—Final drive truck data shows changes 385	Abolished automobile duties have lit- tle effect on exports to England 265
r. 674	Curtiss Co.—War Dept. makes awards	Duerkopp chassis (photo)	African catalog restrictions 230
ls.) 262	for plane developments 560 Cusick R. L.—Good roads victory won.	Duegonharg Automobile and Motors Co	April exports (table)
756	but—keep plugging 570 Exports 927	Prices revised	Geissel
208	Growth of motor accidents awaits solution (photos)	Organized 437 Prices revised 842 Sale announced 212 Sale approved by court 484 Duke Cartage Co.—State motor traffic	Canadian exports for November 123
had 718		control is curbed	Car makers abroad seek to regain for- eign markets
219 861	D 102	control is curbed	Car and truck exports—400,000—1924, by G. E. Quisenberry
760	Daag engine (photo)	Opens new tire casing plant 879 Dunn, H. H.—Pacific coast dealers lose	Cars need replacing
24. 42 762	Daimler bus chassis (photo) 103 Davis Motor Car Co.—New sedan added	ground in freight rate fight 492 Du Pont de Nemours & Co., E. I.—	Demurrage charges in India
1038 1157 in	Dayton Augmotive Wheel Co.—Opens ex-	New polish developed	Exports for eleven months of 1924
in 41 120	Dayton Engineering Laboratories Co.—	water for ethyl gas (photo) 792 DuPont Motors—Six-cylinder chassis at	(brief table)
n 484a	Delco generator for Fageol bus pro- vided with third brush system (ills.) 871	show	1001 1000000000000000000000000000000000
243	Dealers	Durant Motor CoDurant and Star	Exports, imports and reimports of nine months
n-	Dealers and Service—Two Aspects of Marketing	merger on coast	Exports of million cars a year seen1038 February exports (table)
sign	Gasoline retailers become distributors 885 How One President Visualizes the	Offering owners new maintenance plan 532	February exports (table) 750 First quarter 1925 (table) 953 Foreign trade 622
n— 66	Capacities of the Dealer of the Fu-	Dyett Mfg. Co.—Luggage carrier 71	German automotive industry faces fight for existence, by H. Deschamps 470
und 696	ture, A. B. C. Hardy	E	Heavy car shipments rushed to Eng-
und 810	Educational Work. N. G. Shidle 133 Dealer failures decreased	Eadie Trailer Corp.—Four-wheel passen-	land
865	Deere & Co.—Stock dividends 846 De Haviland Aircraft Co. builds two- seater weighing 770 lb. (photos.) 830	ger trailer for buses 904 Eagle Mfg. Co.—Three tractor designs. 317	Markets south of the equator good for automotive industry
ates 1068	seater weighing 770 lb. (photos.) 830 Delage—Prices reduced	Eastman Kodak Co.—Produce new paint 323	1925 record year is prophecy

Jan

Hot Hol

Hole Hor Hug

R D N Huf

Hull Hur Hur Con In P. P.

Igni Iker

B: Imp Indi

Indi

Indu Co Inge Insu Li Or Ra Inter Inter Ives

Jack
Jam.
As
Jewe
Jobh
Lo
John
Jord
Sp
Br
See
Jord

Ge 19 Pl Juha Julia

Kahi Kelse Kette Kimi Kisse Fu

Smaller engine for Overland in Eng- land, by M. W. Bourdon	469	Four-wheel brakes	Gleason Works—Brings out larger spiral bevel gear generators 63
Tire and tube shipments increase To Canada	877	Bendix Brake Corp. has novel exhibit (ills.)	Glebe Mfg. Co., Ltd.—Buys Monarch 43. Gless brake differential — Equalizes
Turkey as an automobile market	748	Four-Wheel Drive Auto Co. Reports increased business 282	torque (ills.) 26
F		France	Glidden Co.—Lacqueroid finishing system 1: Glue—Comparisons of various glues,
Pobrio hadias		Automobile production reduced 212 Frankfort Machine Works reorganized 203	their properties 86
Fabric bodies Tested by Yellow Cab Mfg. Co.—		Franklin Automobile Co.	Goodrich Tire & Rubber Co. Doubles profit484
Discussed at S. A. E. meeting	173	Announces new model series 441 Appearance greatly altered by new body design (ill.) by P. M. Heldt 451	Retires shares
Fageol tractor See Great Western Motors, Inc.		Establishes export department 86	ate new subsidiary 3
Falcon engine (photo)	101	Freight handling—Unit container sys-	Completes dirigible for army 124 Goodyear to resume preferred divi-
Fawick Laboratories—New type of gears	676	tem of shipping (photos)	dends
Federal Motor Truck Co.—Celebrate 15th anniversary	483	Freight meeting to be held 802	To reopen Marathon tire plant 16:
Orders 4500 engines	844	Front wheel drive—Among Indianapolis entries 894	Gotfredson Truck Corp. Brings out new bus chassis 24
Federal Pressed Steel Co. Makes new bumper (ills.)	997	Fuel	Now building taxicab in Canada 49: Offset powerplant of Gotfredson bus
Fiat Automobile Co.—Valve-in-head six	0.0	Can be over-refined 505 Fuel flowmeter works on weighing	increases aisle space
desc. (iils.)	313	principle	Gourlie, John C.—Industry shifting into high
Cuts announced in English cars Fiat four-cylinder desc. (ills.)		Gas consumption lessened by balloon tires 902	Spring business conditions104
Field Body Corp.		S. A. E. fuel utilization session1136	Will the automobile industry lead in air development? (photos) 767
Offers sedan type bodies	236	Substitutes for motor fuel 798	Graham Bros.—Prices reduced 886 Gramm & Kincaid Motors—Organized 83
control	680	G	Grant, Richard F.—Business outlook 92' Gray Motor Corp.—New three-passenger
Filling stations Disadvantages of German type	320	Gardner Motor Co.	coupe
Financing		Eight-in-line models (ills.) 30 Doubles releases 197	Grease gun—"Bulldozer" (ills.) 746 Great Western Motors, Inc.—Tractor
National organization	243 877	New model priced at \$2,495 884	improvements 310
Time sales at less than 1/3 cash con-		New six-cylinder chassis at show 58 Gasoline	Grinders Portable pneumatic grinders announced 269
Time sales increase	765	Federal report out on gasoline price 522	Cincinnati centerless grinders (ills.) 823
Used car guaranty favored 8 Finishes, see Coatings	337	Fuel flowmeter works on weighing principle 583	Portable, power-operated sanding ma- chine
Firestone, Harvey S.	112	Gasoline tax rejected by N. Y. Committee	Standardization and simplification of grinding wheels
Believes 1925 will be good year 2 Fisher Body Corp.—Stock changed		Processes used for making synthetic	U. S. electrical grinder desc. (ills.). 747 Grinding Wheel Mfrs.' Assn.—Stand-
Plant to be enlarged	804	Substitute is the problem of the hour	ardization and simplification of
Fisher fast freight Standard Motor Truck Co	149	in France 199	grinding wheels
Flentje, Ernst—Hercuies shock absorbers Flint Motor Axle Co.	69	Gears All gear shifting eliminated on new	point reflector 25
New bevel gear bus axle has straddle	238	gas-electric Yellow coach, by Herbert Chase and A. H. Packer 456	н
Flint Motor Co.—New models on the 55	5.9	Closer cooperation with gear makers may cut car builders' costs 818	Hakuyo-Sha Iron Works-Announce new
Adds sedan at \$1,580 to Series 40	599	Develops new gear 676	Halladay Co.—Plant starts operation
Mason truck made division of Flint	964	"Strength of gear teeth decreased as a result of inaccurate spacing" 233	Hampton—Prices cut
New sales plan	766 805	Wolcott gear tooth grinder 147 Geissel, H. L.—Automobiles in Holland. 672	air cleaner (drawing) 227 Hanson-Whitney Machine Co.—Merger . 85
Folberth Auto Specialty Co.—Court va- cates decree against Apex Electric		General Automotive Corp.—Changes name 836	Hardy, A. B. C.—"How one president
Mfg.	91	General Electric Co.	visualizes the capacities of the dealer of the future" 231
Ford Motor Co.—May purchase Chester ship plant	35	New battery charger 439	Finds dealers improving methods 596 Hargrave, T. G.—How poppet valves are
Adds 700 daily to time purchasers 5 Adds stake body to truck equipment 5	62 616	Apparatus to reciaim crankcase oil (ills.)	machined on lathes in England (ills.) 268 Hart-Parr Co.—Introduces new model
Air freighter makes maiden trip 7 Aviation plans rapidly expanding 7		Design Duesenberg supercharger1034 Will study headlight evil492	tractor (ills.)
Balloon tires optional equipment 3 Banker shares sales warned against	323	General Motors Corp.—Number of stock-	speaks at N. A. D. A. convention 213
Body for runabout use 7	760	holders (table)	Haynes Automobile Co.—Plant to be auctioned
Buys factory on Seine near Paris 6 By products bring thirteen million		G. M. heads see car industry stabilized 594	Bondholders operate Haynes auto
Canadian Ford factory producing ma- rine engines	383	New G. M. C. trucks have 4-wheel brakes at standard equipment, by	plant
Car standards change in England 4 Closed cab for Ford ton truck	139	W. L. Carver	Hilco headlight desc 794
Edison receives first set of Johansson		Officials make business survey of south 877 Personnel changes 245	Regulations 956 Heaters—Steam heater designed for pas-
First freighter starts south with parts	84	Puts common on 6% basis 282	senger vehicles
Ford air route	767	Research corp. to move to Detroit 679 Sales for 1924 by months 120	York show (ills.)
Ford used car plan in Canada 8 Gets cooperation in rubber grove	884	General Motors Research Laboratories C. F. Kettering's views on Europe and	by new body designs 451 Gas consumption lessened by balloon
Project	139	Africa	tires
Incorporates company in Japan 4 Launches used car policy	74	vibrations of various engine parts 135	Headiight regulations 950
Letter to dealers on used cars	220	General Motors Truck Co.—Opens branches	New Bosch electric generators have voltage control 576
Lincoln sport touring at \$4,500	300 337	General Radiator Co.—To build plant 845 Generators	New Locomobile Junior Eight model now in production 690
Miniature assembly plant (photos) 1	106	Bosch electric generators have voltage	1925 electric truck show reveals ad-
New plan payment schedule	760	control 576 Brings out larger spiral bevel gear generator 630	vances in design 574 Steady progress—few changes—car de-
New radiator shells	202	Bus generator standards discussed by	sign 354 Sandblasting automotive parts 142
Toledo 1924 output 1	161	A. E. A	S. A. E. brake session
Opinion asked on Muscle Shoals Purchase plan a success in Detroit	715 760	vided with third brush system (ills.) 871 Three sizes of bus generator fixed as	among Fordson improvements 257 Technical history of gas-electric
Quarter billion dollars paid workers		Three sizes of bus generator fixed as standard by A. E. A., by A. H. Packer	drives
in 1924	565	Gillette, Leslie S.	Tractor design has developed steadily along conservative lines (Ills.) 314
Starts assembly conveyor at Wem-		New York motorcycle show 300	Unconventional transmissions part 1 1059
Strengthening of rear axle drive	504	De Haviland baby plane (photos) 830 Development of commercial aircraft1092	Unconventional trasmissions, part 21109 Wheel rims reduced to few forms 656 Hewitt Rubber Co.—Sold to company
among Fordson improvements 2 To construct new type airship 2	257 287	Europe continues to show great di- versity in airplane design, by Leslie	Hill, L. Clayton—New body models
To grow flax To manufacture padding	287	S. Gillette	(ills.) 48
To operate a miniature plant	38	korsky plane design 610	Historical
To operate own transatlantic fleet	P 43 29	U. S. mail planes convertible for pas-	Discontangues of Michalas Co.
Foreign Trade, see Export	715	senger service	Bicentenary of Nicholas Cugnot 590 Ford vehicle exhibit taking definite

1	Hoefer Mfg. Co.—Transmission case bor-	Kleiber Motor Co.—New six in four body styles	Vertical automatic desc. (ills.) 707 Mackinnon Mfg. Co.—Resumes work 806
. 630	ing outfit	Klein, Julius-World buying power is	Mack Trucks, Inc.
8 . 266	Holland—Bus transportation develops rapidly 260	Kokomo Mfg. CoKokomo checkers	Financial report 837
12	Holland, Lou. E.—What the public has come to expect from American cars. 232	(ills.) 69	G. M. deal denied
863	Holley Carbureter Co.—Receives engineering award 604	L	Unit container system of shipping (photos)
	New vaporizer permits use of any grade of fuel, by W. L. Carver 698		Madden braking system—Combines me- chanical and hydraulic forces (ills.) 779
. 484c	Holt Tractor Mfg. Co.—Employees re-	Lamb, Harold S.—Invents improved manifold1024	Magnetos—1924 ignition shipments 446
34	Best Tractor may absorb Holt Mfg.	manifold	Maintenance
126	Co	Latex Tire & Rubber Co.—Ships first tires	Durant dealers offering owners new maintenance plan
. 517	Hoover, Herbert—Advertising speeds automotive progress	de Lavaud Sensaud—Automatic trans-	Malco Products Corp.—Autovac uphol- stery cleaner
. 203	Rubber shortage 959	mission1058	Mallory Electric Corp.—Organized 602
. 245	Horch engine (photo)	Automotive and rail men divided on	Manifolds—Improved vaporizing manifold 1024
. 491 s	horses 885	motor regulation 975 Coast dealers drop freight rate case. 556	Mannesmann-Mulag brake (drawing) 103
. 489	Horst & Wilkinson Co.—Patent viola-	Conference committee seeks uniformity in State vehicle laws	Marketing Dealers and Service: Two Aspects of
0 839	Hudson Motor Car Co.—Schedule of pro- duction for three months 80	Indiana Senate bill regulates all buses 444 Interstate bus line decision less sweep-	Marketing
. 1047	Reduces prices	ing than supposed. By H. L. Cobb. 508 Lay plans for 1925 traffic safety drive 560	nght for existence, by H. Dechamps. 470
n 767	New coach probable 283	Michigan changes act to weight basis 284 Says N. Y. buses illegally operated 284	Land of cotton, nation's greatest un- tapped market, by H. F. Podhaski. 548
. 880	Huffman, Russell—State uniformity in 1925 legislation 967 Huffman Brothers Motor Co.—An-	State uniformity in 1925 legislation 967	Marks, J. H.—Most accessories can be produced cheaper outside 893
. 927	nounces new models 285	Title responsibility rests with pur- chaser	Martin-Parry Corp—County club body. 70 Leases former Dort plant 798
. 58 . 746	Brings out new model truck	U. S. traffic survey started by British 518 Wisconsin passes 2c. gas tax 602	Plans to double its capital168 Marvin, J. P.—Sees car industry as great
r I	Hunt Motor Car Co.—Receiver appointed 129	Leather—Process of patching upholstery leathers is improved 582	car feeder
. 316	Hupp Motor Car Corp.—Eight-in-line	French builders are extending use of fabric leather bodies (photos) 813	Master Motor Truck Mfg. CoMerger 476
d 269	desc (ills.)	Lee Tire and Rubber Co Will increase	Material index—monthly in economic survey
. 821	Improvements in four-cylinder line 58 Prices reduced	Lemon, Berton J.—Speaks on balloon	Mauser engine (photo)
. 990	Production for 1924	tires	coupe (ills.) 19 Financial report 720 Transferred to Chrysler 1038
. 790 . 747	I ,	in Peru	Transferred to Chrysler
l- of	Ignition—Sparking voltage affected most	Liberty Motor Car Co.—Budd Companies take over plant	to Ford
. 790	by length of gap and compression. 539 Ikert, B. M.—Revere fours and sixes	Limousine Rody Co.—Sedan bodies for	Mercer Motor Car Co.—Starts foreign
. 25	(ills.)	Auburn	shipments
	dianapolis race 973	Locks—French lock introduced here. 271 Locomobile Co.—Junior eight and Junior	Six-cylinder chassis
	Imports—See Exports Indiana Truck Corp.—4-5 ton truck desc.	six desc	Automotive industry dominates steel
W 475	India Tire and Rubber Co.—1924 earn-	Junior eight model in production. 838 New Junior eight model now in pro-	market
75	ings	duction. By P. M. Heldt	Chevrolet quota system of retail selling 861 Closer cooperation with gear makers
. 227	Company started	Loening Amphibian—Mystery plane tested	may cut car builders' costs 818
. 85	chine (ills.) 709	Loomis, E. F.—Truck demand strong484a	Condition of car sales
er . 231	Insurance Liability insurance sought in Coast	Lubrication	Markets south of the equator good for automotive industry
596	bills 288	Apparatus to reclaim crankcase oil (ills.)	Nat'l Machine Tool Builders Assn. meet to consider markets 836
.) 268	Opposition to compulsory insurance growing apace, by H. S. Ives 536	Bedford lubricator (ills.)	Spring business conditions
el 316	Rate war International Harvester Co.—Adds to bus	Packard cars (ills.)	tures) 748
213	and truck output	by Bijur	What should delivered car prices be allowed to include?
be 35	Interstate Commerce Commission—New freight rates	Pieton ring lubrication is of boundary	Mercury Body Co.—Harris, D. C. chosen
to 438	Ives, H. S.—Opposition to compulsory in- surance growing	type (ills.)	head
lv	_	round engine lubrication, part 1 810	of lines
492	J	Problem of satisfactory, all-year- round engine lubrication, part 2 865 Research started in engine lubrication 723	(ills.)
950 s-	Jackson Motor Car Co.—To be sold at public auction	S. A. E. lubrication session	Metals—Development of metal spraying 578
542 w	Jamaica As a car market	held	Aluminum alloys tested
62 ed	Jewett, H. M.—Merchandising methods. 891 Jewett Motors—Roadster announced 564		industry 882 Nickel consumption in 1924 1074
451 on	Jobbers	Me	Metal Stamping Co.—Majestic spring bumper
902	Loss through returns	McCord Radiator & Mfg. Co.—Financial report	Totem golf bag carrier
950	Jordan, Edward S. Speaks at Michigan Automotive Trade	Buys control National Radiator 999 McCormick-Deering—Power take-off on	Mexico permits vehicle imports free with
ve 576	Association dinner 203	tractors	Michelin Tire Co.—Prices increase 559 Michigan Automotive Trade Assn. meet-
lel 690	Brands 1925 best automotive year 250 Sees shortage of cars during April 606	McDonald, D. M.—Chevrolet quota sys- tem gives better control of retail	Michigan deliveries gain in December 200
d- 574	Jordan Motor Car Co.—Revises list on rebuilt models	selling	Midland Steel Products Co. may merge
le- 354	German sales contract made 802 1924 earnings 283	M	with Otis 247 Denies frame monopoly
142	Plans to centralize dealers' used car advertising	Macbeth, Colin-Talks on balloon tires . 215	Federal trade body cites frame makers 565 Nets \$1,807,483
ve	Junasz Carbureter Co.—New type car-	Machine shop—Evolution 741	cars at Indianapolis 894
257	bureter desc	Machine Tools Bullard power-operated chuck1056	plant 127
ily 529	chassis 988	Cincinnati centerless grinders (ills.) 821 Dual cutters are adjustable on stand-	Minneapolis Steel & Machinery Co.—Two tractor models
1.1052	к	ard milling machine 712	Mitchell Motors Co.—Creditors to get
1109	Kahrs, Otto-German filling stations 320	Hoefer transmission case boring outfit 949 Motor built in base of new milling	part of claims
ny 716	Kelsey Wheel Co.—Financial report 597 Kettering, Charles F.—Opinions on Eu-	Mew automatic screw machine (ills.). 312	Moeller Motor Car Co.—Plan output of Dagmar cabs
els	Kimball, A. L.—Determination of stress	New buffing and polishing machines are chain driven	Moline Plow Co.—Sold to new company 121 Monarch Tractors Ltd.—Sold
48	distribution	Norton grinding wheel stand (ills.) 778 Special equipment widens range of	Monroe Auto Equipment Mfg. Co. —
590	desc. (ills.)	milling machines	Moon Motor Car Co.—1924 sales 43 Introduces two new sedan models 684
ite 480	Prices on models	Vert-au-matic desc. (ills.) 708	New features of body design 60

Ja

Ro

Roi Roi Roi Roi

Rose Rose Rul

Rus Rus Rus

Sale E P

Sale M Saw School

Schi

Sche Sear Seib R Seld

Serv D M Shel In Sher

Shid

And Bridge Care Control Management of Manage

Two new models desc 757	Nichols & Shepard Co. — Markets two models in tractors (ills.) 315	United Motors cuts prices on arma- ture
Moreland Motor Truck Co.—Six wheel truck desc. (ills.) 313	Nordyke & Marmon Co.—New sedan 60	Production
New high speed six-wheel truck desc. (ills.)	Two new open models added 757 Northway Motors Corp.—Guaranty Se-	April production (charts) 84
Morris Motors Ltd.—Buys Bollee plant . 35	curity Corp. files bill against trustees	April production
Engines tested by machine (ills.) 308	Norton Co.—Grinding wheel stand (ills.) 778	Capacity and demand—will they meet or will the gap widen. By N. G.
Machines engine block in one multiple tool operation (ills.) 272	0	Shidle
May adopt self-energizing brake shoe		Shidle 56 Estimated production for 1924 3 Facts and figures for 1924 3
Morris four-cylinder car (photo) 771	Oakland Motor Car Co.—Improved its manifolding	February production totals 287,019
Sound design is essential to successful quantity production	New special sedan 323	Going forward at quickened pace 32
to produce in France 211	To produce more closed models 526 O'Connor, D. G.—Parts and accessories	Higher priced cars hold up well in
Motor and Accessory Mfgrs. Assn.— Officers elected	at New York show (ills) 68	1924 production
Discuss coordination of advertising and	Olds Motor Works—Balloon tires as standard equipment	Gourlie 60
sales	Engine and chassis changes (ills.) 734 New Olds coach	January results prove encouraging to manufacturers 24
1925 committees announced 163	New prices announced 206	Less demand noted for car body woods 56
Motorcycles	Plans 75 per cent closed cars 474 Old Timers' Club changes name to "The	Makers increase their schedules 24 March truck production totals 76
Improved in design, reduced in price	500 Club" 242	May production
(ills.)	Oshkosh Automotive Products Co.— Organized	1924 production by months—cars and
Berlin show	Owen, Percy—Foresees exports of mil- lion cars a year1038	trucks
Motor Products Corp.—1924 earnings 322	non cars a year	Says U. S. can take 25,000,000 cars47
Buys Parsons Co	P	Sound design is essential to successful quantity production
Motor Truck Industries, Inc. — Discuss	Paache Air Brush CoRubbing, polish-	Steadily increasing
models and parts standardization1043 Distribution discussed at meeting 802	ing and sanding machine desc.	Production Methods—Novel handling of
Haves elected president at Lima 169	Pacific Rim Tool Co Tire valve tool 70	bearings 97
Motor Wheel Corp—1924 sales	Packard Motor Car Co.—Prices cut. 38 Advances prices on "Eight". 520	Profits
1924 earnings	Cars supplied with new equipment 477 Chassis changes in Packard "Six"	Developments of 60 days may decide 1925 profits
Mt. Vernon Rubber Co.—Receiver appointed	(ills.) 785	Goodrich doubles operating profit484 Capital Turnover—Profits. By C. A.
Pody companies start additions 445	Packard in aviation field (photos)767	Musselman
Murphy Varnish Co.—Murcote lacquer 655 Murray, J. W., Mfg. Co.—Stock holdings exchanged	Packer, A. H.—A. E. A. bus generator	Protos engine (photo)
exchanged 563 Muscle Shoals—Senate passes Under-	Paige-Detroit Motor Car Co.—Jewett	2
wood bill	SIX desc. (IIIs.)	4
Musselman, C. A.—Capital turnover and profits	Financial report	Quisenberry, G. E.—Car and truck exports for 1924
profits	Jewett coach priced at \$1,260 760 Jewett Roadster announced 564	
(photos and drawings)	More price cuts in English cars 718	Races
N	New Paige brougham will sell at\$2,195 517 Paige adds new brougham to line 760	A. A. A. announces races schedule for
	Patents—Automotive patent report 284 Payton, Edward—Speaks at N. A. D. A.	1925 24 Culver City race ends after crashes. 44
Nash Motors Co.—To market new Ajax car in spring	convention	Darracq wins at Miramas 65
Adds four door sedan at \$1,545	Peerless Motor Car Co.—Four passenger roadster	De Palma makes record in Chrysler 13 De Palma wins at Tauforau 60
Financial report	Body changes in Peerless sixes 835	Earl Cooper wins Charlotte race 88 Front wheel drive at Indianapolis 89
Two new bodies	Makes cut on all 8-cylinder models 520 1924 statement 599	Grand Prix permits American entries 88
convention	Peerless Truck & Motor Co.—Elects Ver	Guyot racing car desc. (photo) 77 Guyot specials entered for Indianapolis
convention	Linden president 757 Petrie, E. C.—Abolished automobile du-	race 29
Mfgs.—Meeting	ties have little effect on English	Grand Prix to be held on Spa circuit. 10 Indianapolis race won by DePaolo 97
panies. C. C. Haunch will be man-	imports	Milton wins 250 mile race
ager 243	Phillips, Clarence—Automotive rail men divided on motor regulation 975	Duplex band saw 27
National Automobile Chamber of Com-	Pierce-Arrow Motor Car Co.—Financial report 805	Radiators—Designs for steam cooling
merce Discuss changes in crating regulations 720	Prices on three models	(ills.)
Discuss coordination of advertising	Piston rods	Radio—Goodyear has new radio station. 12 Railways
and sales	Cleveland piston rod bearings (ills.) 859 Piston rods of different designs	Brill rail car makes trial run 12
Reeves	machined on standard set of tools. 824	Gasoline railcars 88
1925 facts and figures 798	Pistons	Motor car use extended by P. R. R. in repair work
1926 New York show to be held in Palace484a	Proves piston ring lubrication is of boundary type 276	Ramspring Bumper Co.—Royal Super- spring bumper 6
Preliminary facts and figures for 1924 39 Prepare big move for foreign trade 562	Simple equipment used to machine pistons accurately. By W. L. Carver 502 Skeleton pistons used by Hupp (ills.) 235	Registration
Show and convention 944	Skeleton pistons used by Hupp (ills.) 235	17,726,507 motor vehicles in country,
Show farm savings by use of tractors 565 Truck and bus operations between	Podhaski, H. F.—South nation's greatest untapped market	(gain is 2,413,849, or 15.8 per cent) 34 3,634,272 motor vehicles outside U. S.
States 799	Southern bus sales 941 Polish for auto bodies—Census survey 219	(world total, 31,360,779) 34
Truck cost figures to be studied 76 Will feature selling at World Motor	Port Differentials—Bill introduced to	and Census Bureau valuation 16 Canadian motor registrations 16
Congress 516 National Automobile Dealers Assn.—	Prest-O-Lite Co.—To sell direct to re-	1924 valuation
Meeting	tailers 800	Registration of cars and trucks Dec
Dealers better off this year says Vane 599 Officers elected	Prices—Price changes during show week 82 Automobile steel sheet price trend 485	31, 1924 (tables) 9 Reliable Motor Truck Co.—Sold 84
Conference	British price variations484B Citroen reduces prices on models in	Renault reduces prices
facturers 213	Britain484a	Renault reduces prices
Starts used car sales campaign 562 To confer with N. A. C. C 834	Cuts announced in English cars 678 Franklin announces new model series 441	Coupe announced
To confer with N. A. C. C	Locomobile raises prices on Series 48. 645	Reports increase in foreign business 21
Formed	McFarlan price changes. 638 Michelin raises prices. 559 More cuts in English cars. 718	Republic Motor Truck Co.—New three
National Machine Tool Builders Assn.—	More cuts in English cars	ton truck 52
Meet to consider markets 836 National Radiator & Mfg. Corp—Bought	\$1.545	Cab arrangement feature of new truck (ills.)
by McCord 999	New Paige brougham will sell at	(ills.)
by McCord	\$2,195 517 Packard advances prices on "Eight" 520 Passanger car prices stabilizing again 306	Research, see Engineering.
Start investigation of jobber methods. 683 National Tractor Meeting—Optimistic	Passenger car prices stabilizing again 306 Peerless makes cut on all cylinder	Rickenbacker Motor Co 1925 line
Nael. H. A.—Discusses steel casting an-	models 590	(ills.) 2
nealing	Readjustment car prices	Rims—Tests show drop center rim in
they may do to truck sales 727 New Era Spring & Specialty Co.—Le	Studebaker changes closed car prices 726	favorable light
New Era Spring & Specialty Co.—Le Clair horns	Stutz revises prices on entire car list 594 Truck list prices	Rim and Wheel Distributers Assn.—For-

	Roads
642	Another good roads victory won — keep plugging, by R. L. Cusick570 California finishes unit of road 128
840	Chicago Convention of American Road
877 644	Builders Association
	wear
567	Egyptians to study U.S. road building 285
39	Ranway beds may become truck roads 11
599	Senate passes road bill
322	Texas appropriation for highways 43 "What price highways?" 109 Roamer Motor Car Co.—Exhibits straight
336	Roamer Motor Car Co.—Exhibits straight "Eight" at Chicago show 197
607	Rochester Bearing Co.—Rochester firms
240 566	Rockford Tool Co.—New machine for
245	rubbing, polishing and sanding desc. (ills.)
762 914	(ills.)
729	Rollin Motors Co.—Two-door brougham
797	Polls Royce of America—Relnan resigns
-479	Elects H. J. Fuller as president 759 Rolls-Royce Ltd.—Patents air brake 463
632	as head 715 Elects H. J. Fuller as president 759 Rolls-Royce Ltd.—Patents air brake 463 "New Phantom" desc. 888 Ross Gear & Tool Co.—Steering for
. 282 438	Forus (ms.)
978	Rover—Prices cut484b
	Rubber Crude rubber may be grown in U. S., 684
807	Crude rubber may be grown in U. S. 684 Crude rubber prices increased 879 Crude rubber situation
484c	Rubber consumption increase 181
527 101	Value 1924 exports 248
716	new preparation
	Rubber Assn. of America — Officers elected
. '	elected
. 425	Rub-Tex Products Co.—Buys Premier plant
	Rushmore, S. W.—Steam heater designed for passenger vehicles
r	Russell & Co.—Offer four tractor models 317 Russia—Selling cars to Russia 107
. 248	
. 658	S
. 606	Safety—S. A. E. highway safety session 1127 Saintin, M.—Self starter of charge-in-
. 894 . 883	jection type is introduced 463
. 773	Salesmanship English serve tea at gas stations 716
. 292	English serve tea at gas stations 716 Price or quality wiser selling argument? 900
. 970	Salesmen
. 479	Manufacturers must help educate the retail automotive salesman 782
. 270	Saws-New Duplex band saw produced 270
. 304	Schenuit, F. G. Co. — To manufacture tires
. 126	Schipper, J. E.—Special body welding methods desc. (ills.) 652 Schrader's Sons—Tire pressure gauge (ills.) 70
. 122	Schrader's Sons — Tire pressure gauge (ills.)
. 885 in	Schools
. 443 r-	Oakland inaugrates school for dealers 83 Seaman Body Corp.—Increases produc-
. 69	Seiberling Rubber Co.—Declares divi-
	dend 86 Revolutionary Tire Process Described 560 Selden Truck Corp.—Develops new 2½ 161
y, 348	Selden Truck Corp.—Develops new 21/4 ton light speed truck
S. 343	Plant sold for \$450,000 562
165	The state of the s
248	Dealers and service, two aspects of
c.	Metallurgy in relation to service 744
840	Shelton, Sam—Dealer failures decreased.114 Indianapolis race won by DePaolo 970
W 107	Sherwin-Williams Co.—Lacquer applica-
918	Shidle Morman C -Smart hodies with
877	daggling colors at Silver Jubilee
	Shidle, Norman G.—Smart bodies with dazzling colors at Silver Jubilee show. 45
ee	Automobile husiness has its hest days
ee	Automobile husiness has its hest days
ee 521 ck 816	Automobile business has its best days ahead 254 Business good and getting better, factories optimistic 687 Capacity and demand: will they meet 667
ee 521 ck 816 ht	Automobile business has its best days ahead 254 Business good and getting better, factories optimistic 687 Capacity and demand: will they meet 667
ck 816 ht 124	Automobile business has its best days ahead 254 Business good and getting better, factories optimistic 687 Capacity and demand: will they meet or will the gap widen? 567 Chas. W. Nash story 1012 Confidence in future of industry shown
ee 521 ck 816 ht 124 ne 22	Automobile business has its best days ahead 254 Business good and getting better, factories optimistic 687 Capacity and demand: will they meet or will the gap widen? 567 Chas. W. Nash story 1012 Confidence in future of industry shown by Dodge purchase 647 Manufacturers must help educate the retail automotive salesman 782
ee 521 ck 816 ht 124 ne 22 rp. 87 in	Automobile business has its best days ahead 254 Business good and getting better, factories optimistic 687 Capacity and demand: will they meet or will the gap widen? 567 Chas. W. Nash story 1012 Confidence in future of industry shown by Dodge purchase 647 Manufacturers must help educate the retail automotive salesman 782 Merchandising methods 891 1925 production policy fruitful 729
ee 521 ck 816 ht 124 ne 22 rp. 87 in	Automobile business has its best days ahead 254 Business good and getting better, factories optimistic 687 Capacity and demand: will they meet or will the gap widen? 567 Chas. W. Nash story 1012 Confidence in future of industry shown by Dodge purchase 647 Manufacturers must help educate the retail automotive salesman 782 Merchandising methods 891 1925 production policy fruitful 729 1924 income statements show profits don't follow production line 487
ee 521 ck 816 ht 124 ne 22 rp. 87 in 618	Automobile business has its best days ahead 254 Business good and getting better, factories optimistic 687 Capacity and demand: will they meet or will the gap widen? 567 Chas. W. Nash story 1012 Confidence in future of industry shown by Dodge purchase 647 Manufacturers must help educate the retail automotive salesman 782 Merchandising methods 891 1925 production policy fruitful 729 1924 income statements show profits don't follow production line 487 Our industry today—Let's look at the

60 day developments may decide 1925
profits
profits
ucational work
car manufacturers
What should delivered car prices be
allowed to include? 868 Wheel shimmy bone of contention at
annual S. A. E. meeting 173 Yes, yes; but who are the boys? 614
hipping — Changes in regulations dis-
cussed
Texas railroads feel effect of shipping via trucks 844
Unit container system of shipping freight (photos)
hock Absorbers
Lovejoy improves hydraulic shock ab-
sorbers 236
hop equipment
Machine built to grind brake drums 551 Motor drive one feature of new De-
troit centerless grinder 500
troit centerless grinder
chine desc. (ills.)
hows—Foreign
Berlin automobile show (ills.) 100 English shows announced 677
French not likely to hold 1925 show. 292
Montreal show breaks Canadian rec- ord
ord
Olympia show dates advanced three
hows—General Argentine congress postponed to fall. 557
Associations foin for Detroit event 480
Business is good at Boston motor show 566 Chicago show desc. (photos)
Cleveland show stimulates ontimism. 208
Denver show starts buying by farmers 477 Detroit show mainly body exhibit 163 Detroit show eclipses past selling rec-
Detroit show eclipses past selling rec-
ords
List of exhibitors at Chicago show 125
Many purchase at Cincinnati show 163
Mission from Mexico see show 87
N. A. C. C. show 944 Newark show has record attendance 122
New York motorcycle show (ills.) 300
1926 New York show to be held in
Palace
Novel service meet held at Lycoming. 645 Rochester reports record attendance
Novel service meet held at Lycoming. 645 Rochester reports record attendance at show
Silver Jubilee show (ills.) 45
shows (tables)
Trade days to become fixed feature 74 Sibley, H. H.—Stock market prices 1030
Simons, G. O.—Business forecasting 937
Society of Automotive Engineers
Allen will talk at New York meeting 290 Announce proposed bus specifications. 983 Annual banquet
Annual banquet
struments for research, fabric bodies, dilution facts, etc. 173
Balloon tire standards
Balloon tire standards
Section
Die castings subject of Section 596
Discuss new car designs 90 Discuss standard for auto frames 518
Headlight regulations 950 Hears results of reaction tests 442
Horning announces committees for
1925
1925 174 Membership scope extended 175 Metallurgy in relation to service discussed at Metropolitan Section 1744
Committee
Paper on unconventional transmissions
riston rods of different designs ma- chined on standard set of tools 824
Program completed for tractor meet-
Research started in engine lubrication 723
Summer meeting 1120
South Africa needs cheaper petrol, good
South Africa needs cheaper petrol, good roads and better servicing—M. Ed- ward
Summer meeting

Sparks Withington Co.—Financial report Spicer Mfg. Co.—Financial report Spiro, Walter J.—Invents multiple disk	805 516
type brakes	235
magneto for aircraft (ills.)	237
	104 737
Standardization issue of 1925	202 920
Dus Belletator stallation	874 518
Effected by state highway officials	206 853
New proposals laid before S. A. E.	
standards committee	298
Standard colors for foundry patterns .	747
Standardization of silent chains and	709
Three sizes of bus generators fixed as	518
standard by A. E. A	$\frac{506}{922}$
Tire size standards Standard Truck Co.—New Fisher fast freight Stanley Motor Carriage Co.—Smaller car	149
Stanley Motor Carriage Co. — Smaller	61
Stanton, Dr. T. E.—Proves piston ring lubrication is of boundary type	276
Star Rubber Co.—Sales increase4 Coupster model at \$625	84b 761
Coupster model at \$625 Starter—Inertia type starter for airplane engines developed Self starter of charge injection type.	137
State venicle laws—Conterence seeks uni-	463
formity	220
at S. A. E. meeting Experiments furthered—Steam cooling	193 245
Says steam cooling has little effect on power output of engine	590
Steel	
Automobile sheet price trend lower Car makers placing large steel orders	485 559
Steel casting annealing not new proc-	320
ess Effects of sulphur, phrosphorus, car- bons, manganese and silicon on steel	267
Steel bodies—Discussed at S. A. E. meeting Steeldraulic Brake Co.—Incorporated Stewart Motors Corp.—Appended new	181
Stewart Motors Corp.—Announces new	838
two-ton unit	642 710
Storage battery separators	870 445
two sizes Storage battery separators Stoughton Wagon Co.—New model Gets new capital, activities to be broadened	519
broadened	186
Identified with automobile interests (photos)	767
Receives orders for planes	837
Studebaker Corp. of America	
Adds four new body types Bus chassis planned	$\frac{287}{674}$
Changes closed car prices Financial report for first quarter	$\begin{array}{c} 726 \\ 800 \end{array}$
New trade-in policy	287
Adds four new body types Bus chassis planned	639
finish	61 756
Exceeds quotas Revises prices on entire car list Sued by Weidley Motors Sunbeam Motor Car Co. — New model rated at 120 hp.	$\frac{594}{210}$
Sunbeam Motor Car Co. — New model rated at 120 hp.	860
Superchargers—At Indianapolis race Duesenberg supercharger Swift Products Co.—To manufacture hoists	973
Swift Products Co. — To manufacture hoists	845
hoists Swinehart Tire & Rubber Co.—Reports good year	
T	
Tables of physical and chemical con- stants. Being published by Inter-	
national	260
Tariff, see Taxes Taxes	
Automotive taxes less than year ago British reimpose duties	806 797
California takes up motor taxes	128
Campaign Gasoline tax adopted by majority of states	206
Cogning tax rejected by New York	484c
Highway taxes Makers urge repeal of war motor taxes Repeal of war motor taxes urged Swiss tariff is approved Tax elimination urged	804 714
Repeal of war motor taxes urged Swiss tariff is approved	758 623
War tax should go, Coolidge declares.	184b
Taxicabs	109
Gotfredson now building taxicabs in Canada	491

Plan big output of Dagmar cabs 717 Taylor SocietyMeeting 846	Suggests shipping loaded trucks by	Improve airplane type engine 127 Versare Corp.—Produces eight-wheeled
Meeting 891 Templar Motor Co.—Sold 882	railroad	bus with gas-electric drive desc. (ills.)
Ternstedt Mfg. Co.—Ford Old Timers	Traffic congestion	Victor Rubber Co.—Burr succeeds Ber- lin
Testing-Notched bar tests investigated 305	Trailers—Not taxable 766 Transmissions—New transmissions shown Indiana S. A. E	Vulcan Motor Axle Co.—Friendly receiv-
Bureau of Standards reports on short time fatigue test	Lavaud automatic transmission1058	Vulcan Axle Co. sold
Machine tests engines at Morris plant (ills.)	S. A. E. transmission session1145 Unconventional transmissions1052	w
Making tests of giant pneumatics 573 New theory of detonation 650	Unconventional transmissions, part 2.1109 Transportation—Ford to operate own	Wages—Piece work system1070
Recent British tests throw new light on carburetion requirements 626	fleet	Walcott Lathe Co.—Buys American Grinder Co. 124
S. A. E. hears results of reaction tests 442. Test shows drop center rim in favor-	Trucks	Improved indexing mechanism on Wai-
able light 618	Acme adds one-ton flier to truck line 569 British truck designed for high speeds	cott gear tooth grinder 147 Wanner Malleable Castings Co.—Reor-
Tests on 12-hp. low speed gas engines 575 Tetraethyl lead—Sales discontinued 835	with solid tires, by M. W. Bourdon. 584 Cab arrangement feature of new Re-	Warehouse to hold 6800 automobiles 92
Texas Motorbus Owners Assn.—Texas highway committee	public truck (ills.)	Warner, Edward P.—Field of research. 1088 Warner & Swazey Co.—Announce port-
Tiffany, D. H., Corp.—Consolidates 438 Timken-Detroit Axle Co.—Secures Phila-	Ford adds stake body to equipment 516	able pneumatic grinders (ills.) 269 Weidley Motors Co.—Sues Stutz Co 210
delphia contract	Huffman brings out new model trucks. 484b List prices	Wolding Two new arc-welding machines
Timken Roller Bearing Co.—Buys assets of Gilliam Mfg. Co	Major units of new Indiana 4-5 ton truck easily detachable, by H. Chase 496	wemp, C. E.—Developments in automo-
Tipper, Harry—Waste in advertising. 294 More light needed on efficiency of	Makers discuss models and parts stan- dardization	tive clutches
marketing methods 580 Your advertising—does it cost money	manufacturers discuss truck distribu-	Westinghouse Electric & Mfg. Co.—Stops
or bring profits? 847	Moreland six-wheel truck desc. (ills.) 987 Motor truck convention	mfg. of automotive ignition 123 Tells of air brake of unusual design. 519
Tire and Rim Assn.—Anderson elected president	New G. M. C. trucks have 4-wheel brakes as standard equipment, by	Develops heat treatment of large steel castings
Tires	W. L. Carver	Weston Dump Body Co.—Buys Keith furnace plant
Another balloon tire size approved 125 Balloon tire sales show great gain 482	1925 electric truck show reveals advances in design, by P. M. Heldt 574	Weyman Co.—Achieves striking body design desc. (ills.) 660
Balloon tires at Indianapolis race 973 Balloon tires increase rubber con-	Reo two-ton truck desc. (ills.) 1025 Republic brings out new three-ton	Wheels-Weldless pressed steel spoked
sumption 781	Sees electric truck future hazardous. 560	wheel
Balloon tires lessen gas consumption. 902 Balloon tire patent	Sees good openings for trucks abroad 558 Stewart announces new two-ton unit 642	eter wheels (ills.)
Concrete roads greatly reduce tire wear	railroad 1944	front wheel "wobble"
Consumers price list opposed 798 Dominion announces cut 721	Truck Changes—Final drives—Truck	wheels
Economy tests of bus tires 890 Increase in price effective May 1 796	data shows	Web wheel with fibre disk 625 Wheel shimmy—Discussed at S. A. E.
Increase in prices opposed 764 Latex ships first tires to British East	truck sales	meeting 173
Africa	ter 883	Wheeler-Schebler Carbureter Co.—Klean E-Z filter (ills.)
Output for 1924 126	Turkey—Market for automobiles (ill.) 748	White Motor Co.—Price reductions 245 Earns \$4,084,248 in 1924
Output in 1925 may be \$500,000,000 597 Physicists help solve tire problems1062	U U	1924 production figures
Revo'utionary process described 560 Schenuit to make tires 484	Union Drawn Steel Co.—Buys Frasse Steel Works	Whitfield & Sons, Inc.—New bus body 726 Wilcox, M. I. Co.—Sells top business to
Small tire makers make largest gain .484b Survey shows stocks at low point 758	United Motors Corp.—Prices reduced 642 U. S. Chamber of Commerce—Annual	Chapman Mfg. Co 91 Wills Sainte Claire Co.—New six desc.
Tire and tube shipments increase 877 To make new survey of U. S. tire	meeting report	(ills.) 24
stocks	Paper on piece work system	Busy producing new six
Tools—See also Machine Tools.	sales, batteries	1925 production plans
New ball bearing chain block 313 New universal and tool grinder 631	rules mail trucks must observe laws 89	industry
Torque arms—new fabric support by Belflex	U. S. Radiator Corp.—Financial report. 525 Upsetting machine lowers cost of pro-	models
Townsend Tractor Co.—Add new model (ills.)	duction on certain kinds of forg- ings (ills.)	Changes made in Overland series 885 Confer on speedy service 560
Tractors	Ursus Co. formed	Financial report
Bright outlook for farm tractors826 Engineers will meet on tractor prob-	Buyers instead of appraisers wanted 210	Makes South American changes484b 1924 production and sales164
lems 595	Factor in future production programs 896 Ford launches used car policy 637	Overland & Willys-Knight desc. (ills.) 14 Smaller engines for Overland in Eng-
Design has developed steadily along conservative lines. (ills.) 314	Ford used car plan in Canada	land, by M. W. Bourdon
Ford holds exhibition in New York. 438 Oilpull tractors redesigned 466	N. A. D. A. starts used car sales cam- paign 562	Speed production 599 Wilson, E. H., & Co.—Incorporated 559 Organized 844
Sales increase in south	New Studebaker trade-in policy 1081	Wilson Welder and Metals Co., Inc.— Introduces two new arc welders 270
Strengthening of rear axle drive among Fordson improvements 257	Used car stocks low 876	Window regulators—Rawlins window lift desc. (ills.)
Wheel tractor exports increase 19 per cent	Valves	Wolff, Walter—Selling cars to Russia 107
Traffic	Cast iron valve heads can be welded to steel stems	Wolverine Bumper & Specialty Co.— Two-bar bumper
Americans want transport discussion	Machining poppet valves on lathes in	Wonder State Mfg. Co.—Organized 34
at Brussels	England	X-Y-Z
Inter-nation traffic draft proposed 883	Van Haltern, A. S.—Says boss bolts are superfluous on small diameter wheels 303	Yale & Towne Mfg. Co.—New ball bearing chain block (ills.)
Memphis leads in reducing fatalities 285 New York City traffic signals simpli-	Varnishes, see Coatings	Yellow Cab Mfg. Co.—Experiments with
State motor traffic control is curbed. 128	Velie Motor Corp. — Two new body styles 61	fabric bodies
	The second secon	